

**KICKER®**  
**KS COMPONENT SYSTEM**

**KS650.2, KS60.2, KS50.2**



Models: **KS650.2 / KS60.2 / KS50.2**

### Congratulations on your KICKER purchase

Please record your purchase information and keep your sales receipt for validation of warranty.

Authorized Kicker Dealer: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

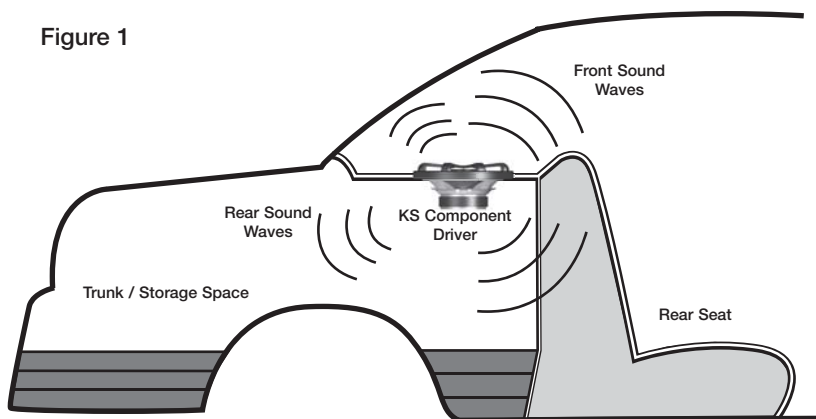
Speaker Model Number: \_\_\_\_\_

Your KS components were specially designed for "Livin' Loud" out in the harsh automotive environment. They are made of advanced materials and construction techniques to maintain optimal performance for years to come.

### Application

The Kicker KS components are specifically designed for mounting in free-air applications. The speakers do not require a sealed enclosure for optimum performance. It is important to isolate the sound coming off the front of the driver from the sound radiating from the back of the driver. This isolation is usually accomplished by using the driver in a factory speaker location, or in a location with a semi-isolated rear chamber. See Figure 1.

Figure 1

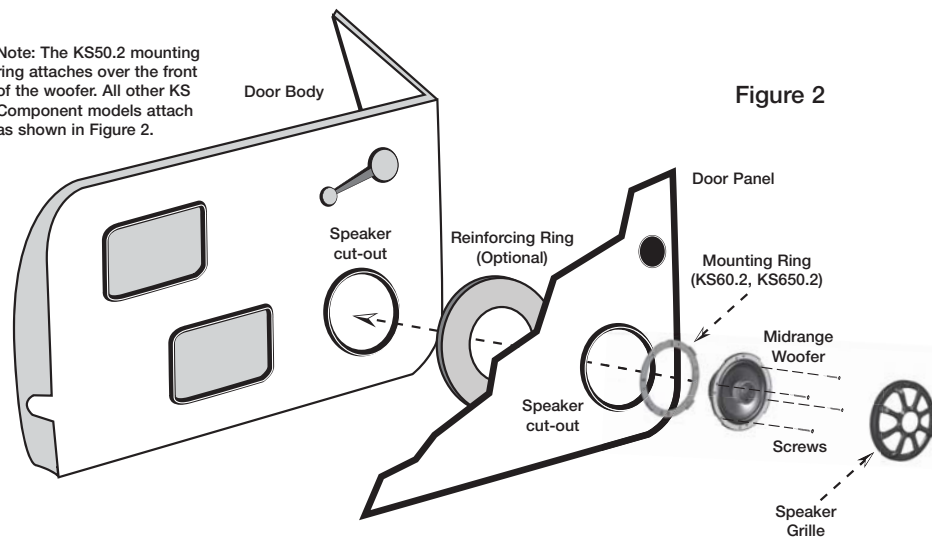


### Location

The sound produced by the KS components is directional, particularly for the tweeter's sonic output. The external crossover has a three position (0, 3, and 6dB) High Frequency Output Level switch that allows for added flexibility in positioning the tweeter. Find the best location for stereophonic sound. If necessary, add more KS component systems or coaxial speakers to the audio system to help distribute and balance the sound. After determining the best mounting locations, carefully check the areas where the mounting hardware will be placed. See Figure 2.

Note: All specifications and performance figures are subject to change. Please visit the [www.kicker.com](http://www.kicker.com) for the most current information. To get the best performance from your new Kicker speakers, we recommend using genuine Kicker Accessories and Wiring. Please allow two weeks of break-in time for the speaker to reach optimum performance.

Note: The KS50.2 mounting ring attaches over the front of the woofer. All other KS Component models attach as shown in Figure 2.



### Woofer Mounting

If you are replacing factory speakers in their original locations, you may have to enlarge the speaker cut-outs and pre-drill new screw holes using a 7/64" (2.5mm) bit. Custom mounting locations will require more preparation and work. In either case, make sure the speaker will not interfere with the trunk and door opening and closing mechanisms, and the enclosed screws will not puncture the fuel tank, wiring, or interfere with any other mechanical parts on the underside of the mounting surface. Cycle the windows all the way down and up.

If the speaker cut-out locations require you to cut metal, avoid structural metal and braces. If the door body and panel cannot support the weight of the speaker, an optional reinforcing ring (thin piece of wood or Medium Density Fiberboard) may be fastened or adhered to the door body. Mount the speaker to the vehicle as outlined in Figure 2.

If factory speaker wiring is not available in your desired location, it may be necessary to run speaker wire through the door jamb. The speaker wire should be kept away from sharp edges and avoid the possibility of getting pinched by the door. An existing grommet in the door jamb is the ideal place to run the speaker wire. If the factory hole and grommet do not exist or are inaccessible, you must drill a hole to run the speaker wire through the door jamb. Be careful not to drill into other wiring or exiting door mechanisms. Any time a wire is run through a hole, it is necessary to insert a rubber or plastic grommet to protect the wire from damage as outlined in Figure 3.

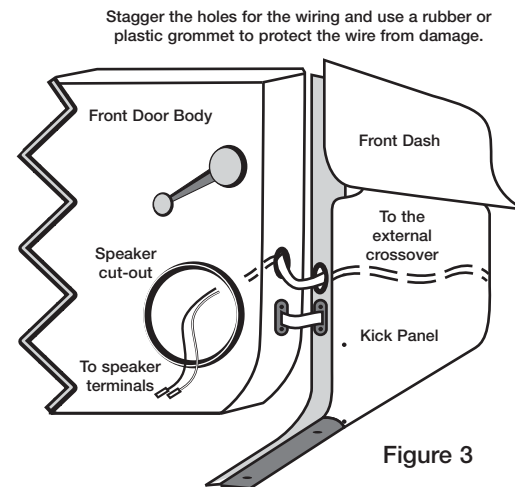


Figure 3

The tweeter can be mounted one of four ways: flush, surface, angled, and coaxial mounting. For flush mounting applications, please refer to the illustration in Figure 5. Choose a flat location on the panel with space behind the panel to allow room for the mounting nut and motor structure. After checking the clearances, cut a 1 15/16" (4.9 cm) diameter mounting hole in the panel. Position the shorter mounting nut behind the panel. Use the longer mounting nut if the panel's thickness prohibits the use of the shorter mounting nut. Feed the wire through the optional tweeter flange, the hole in the panel, and the mounting nut. Mount the tweeter by screwing the mounting nut onto the tweeter.

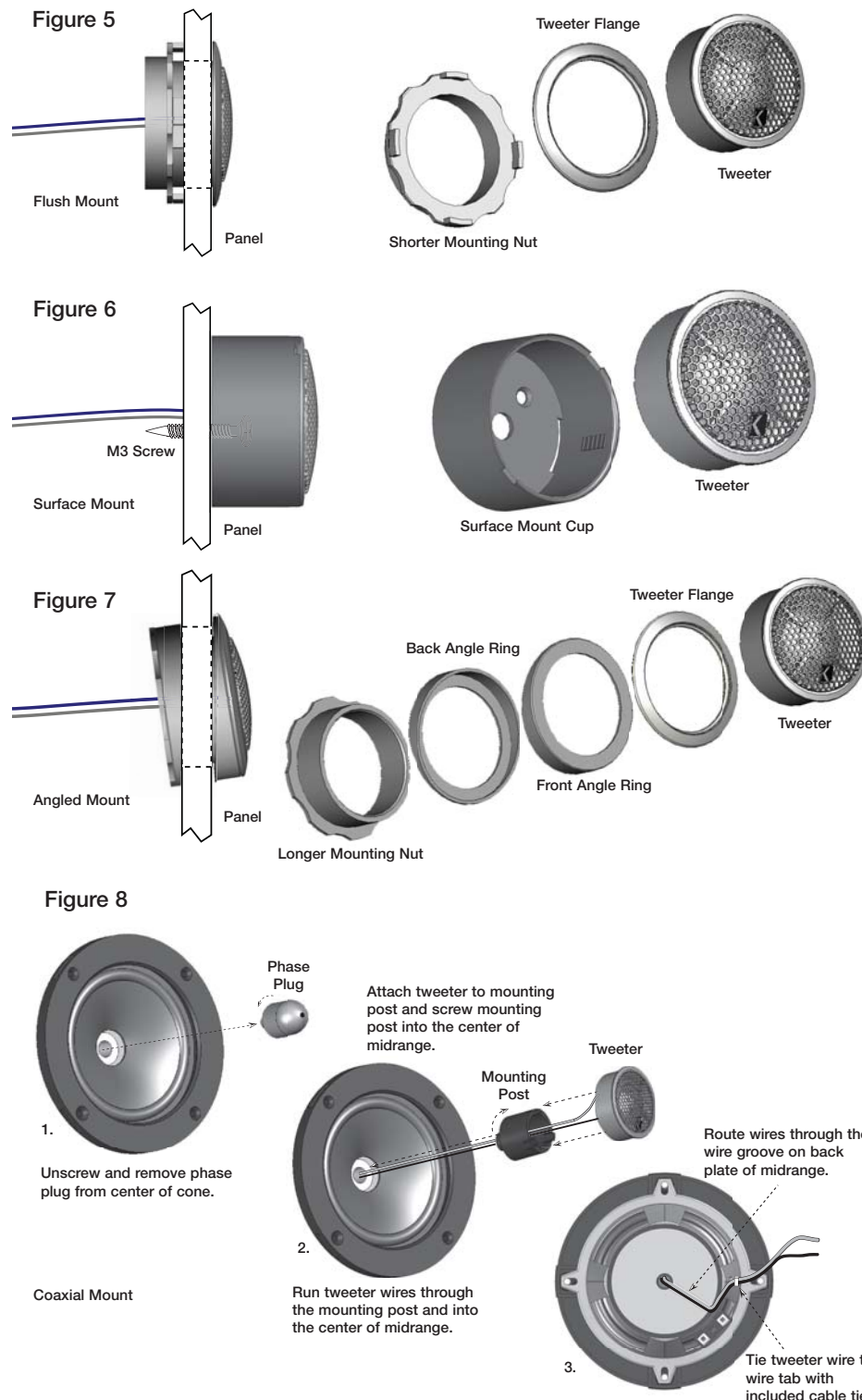
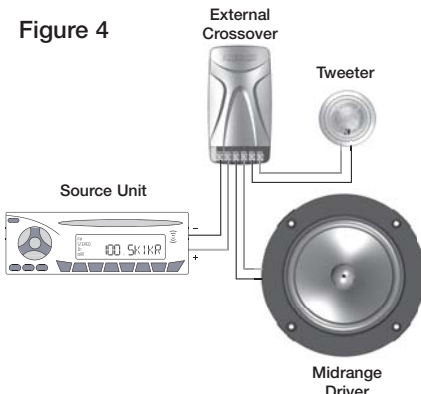
For surface mounting applications use the surface mount cup as a template and pre-drill one 7/64" (2.5mm) screw hole for attaching the surface mount cup to the panel, and a 5/16" (8mm) hole for the wires. A M3 pan-cross head wood screw is supplied to attach the surface mount cup to the panel. Position the tweeter over the surface mount cup and press it into position. See Figure 6.

For angled mounting applications choose a flat location on the panel with space behind the panel to allow room for the longer mounting nut and back angle ring. After checking the clearances, cut a 1 15/16" (4.9 cm) diameter mounting hole in the panel. Place the front angle ring (does not fit through the longer tweeter mounting nut) in front of the panel. Then place the wire and tweeter through the tweeter flange, front angle ring, and into the panel. Next place the wire through the back angle ring (fits through the longer mounting nut), place the back angle ring over the rear of the tweeter, and line-up the narrow part of the front angle ring for the preferred angle of operation. Place the wire through the longer mounting nut and loosely tighten the mounting nut around the tweeter. Rotate all the parts in unison until the tweeter is angled in the desired direction. Secure the assembly by tightening the longer mounting nut. See Figure 7.

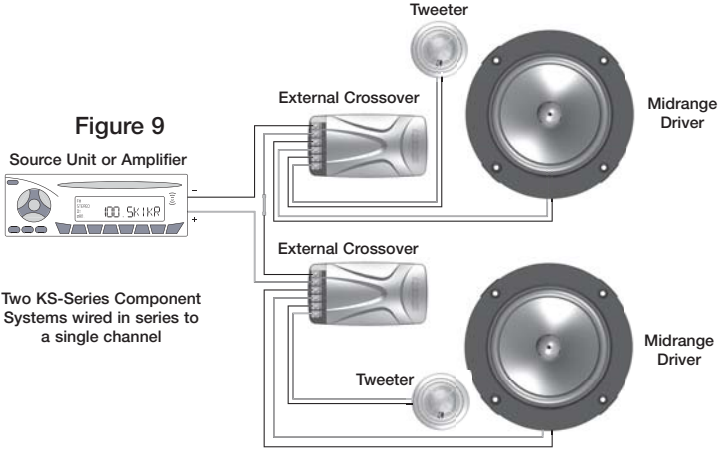
The KS-Series Component system can also be mounted coaxially by attaching the tweeter to the center of the midrange. For coaxial mounting, unscrew and remove the phase plug from the center of the KS midrange driver. Next, run the tweeter wires through the mounting post into the center of the midrange driver and out of the back plate hole. Connect the tweeter assembly to the mounting post and screw the mounting post into the center of the midrange driver. After the tweeter has been secured to the midrange, route the wiring through the wire groove on the back plate of the midrange and attach the tweeter wires to the wire tab with the included cable tie. See Figure 8.

## Wiring

Hooking up the Kicker KS-Series Component Speakers is easy. Mount the external crossover in a location free and clear of water and mechanical components of the vehicle with the enclosed phillips-head wood screws. One end of each wire is terminated with a large and a small connector. The larger connector is crimped to the gray wire and connects to the larger positive terminal of the speaker. The smaller connector is crimped to the black wire and connects to the smaller negative terminal of the speaker. The other end of these wires must be stripped and connected to the external crossover's output terminals. Then, connect the external crossover's input terminals to the source unit or amplifier in accordance with its owner's manual.



Modern high performance component system speakers have a lower DC Resistance than what used to be available. The Kicker KS-Series component system speakers are rated at four ohms and work with any source unit or amplifier designed to operate at a four ohm load. If you want to use two KS-Series component system speakers (two midrange/woofers and two tweeters) on each channel of your source unit or amplifier wire the crossovers in series, as shown below. This will improve the sound quality, lower the total harmonic distortion and lessen the thermal load at the source unit or amplifier. This may prevent an amplifier from shutting down, due to over-current protection circuitry. See Figure 9.



**Performance**

Model:	KS50.2	KS60.2	KS650.2
Woofer Size, in (mm)	5 1/4 (130)	6 (160)	6 1/2 (165)
Tweeter Size, in (mm)	1 (25)	1 (25)	1 (25)
Dome Material	Aluminum	Aluminum	Aluminum
Impedance ohms, Rated (DC Resistance)	4 (3)	4 (3)	4 (3)
Power Handling Watts, Peak (RMS)	130 (65)	150 (75)	150 (75)
Sensitivity [SPL <sub>o</sub> ], dB @ 1W, 1m	88	88	88
Effective Frequency Range, Hz	38-21k	35-21k	35-21k
Woofer Mounting Hole Diameter, in (cm)	4 9/16 (11.6)	5 (12.7)	5 5/8 (14.3)
Woofer Mounting Depth, in (cm)	2 (5.1)	1 15/16 (4.9)	2 1/8 (5.4)
Flush Mount Tweeter Depth, in (mm)	13/16 (21)	13/16 (21)	13/16 (21)
Flush Mount Tweeter Hole Diameter, in (cm)	1 15/16 (4.9)	1 15/16 (4.9)	1 15/16 (4.9)
High Pass, dB, at Frequency, Hz	12, 4000	12, 4000	12, 4000
Low Pass, dB, at Frequency, Hz	12, 4000	12, 4000	12, 4000
High Frequency Output Level, dB	0, 3, 6	0, 3, 6	0, 3, 6

**Pro Tip:** You are one Kicker Loaded-Subwoofer enclosure, one ZX Mono-Amplifier and a few cables away from a slammin' system! The Kicker ZX line of mono-amplifiers make it easy to upgrade to solid bass with your existing or stock source unit. Please ask your dealer about the Kicker Comp and CompVR Subwoofer upgrades.

Kicker warrants this product to be free from defects in material and workmanship under normal use for a period of THREE (3) MONTHS from date of original purchase with receipt. When purchased from an Authorized KICKER Dealer it is warranted for ONE (1) YEAR from date of original purchase with receipt. In all cases you must have the original receipt. Should service be necessary under this warranty for any reason due to manufacturing defect or malfunction during the warranty period, Kicker will repair or replace (at its discretion) the defective merchandise with equivalent merchandise at no charge. Warranty replacements may have cosmetic scratches and blemishes. Discontinued products may be replaced with more current equivalent products.

This warranty is valid only for the original purchaser and is not extended to owners of the product subsequent to the original purchaser. Any applicable implied warranties are limited in duration to a period of the express warranty as provided herein beginning with the date of the original purchase at retail, and no warranties, whether express or implied, shall apply to this product thereafter. Some states do not allow limitations on implied warranties; therefore these exclusions may not apply to you. This warranty gives you specific legal rights; however you may have other rights that vary from state to state.

**WHAT TO DO IF YOU NEED WARRANTY OR SERVICE**

Defective merchandise should be returned to your local Authorized Stillwater Designs (Kicker) Dealer for warranty service. Assistance in locating an Authorized Dealer can be found at [www.kicker.com](http://www.kicker.com) or by contacting Stillwater Designs directly. You can confirm that a dealer is authorized by asking to see a current authorized dealer window decal.

If it becomes necessary for you to return defective merchandise directly to Stillwater Designs (Kicker), call the Kicker Customer Service Department at (405) 624-8510 for a Return Merchandise Authorization (RMA) number. Package all defective items in the original container or in a package that will prevent shipping damage, and return to:

Stillwater Designs, 5021 North Perkins Road, Stillwater, OK 74075

The RMA number must be clearly marked on the outside of the package. Please return only defective components. The return of functioning items increases your return freight charges. Non-defective items will be returned freight-collect to you.

Include a copy of the original receipt with the purchase date clearly visible, and a "proof-of-purchase" statement listing the Customer's name, Dealer's name and invoice number, and product purchased. Warranty expiration on items without proof-of-purchase will be determined from the type of sale and manufacturing date code. Freight must be prepaid; items sent freight-collect, or COD, will be refused.

**WHAT IS NOT COVERED?**

- This warranty is valid only if the product is used for the purpose for which it was designed. It does not cover:
- o Damage due to improper installation
  - o Subsequent damage to other components
  - o Damage caused by exposure to moisture, excessive heat, chemical cleaners, and/or UV radiation
  - o Damage through negligence, misuse, accident or abuse. Repeated returns for the same damage may be considered abuse
  - o Any cost or expense related to the removal or reinstallation of product
  - o Speakers damaged due to amplifier clipping or distortion
  - o Items previously repaired or modified by any unauthorized repair facility
  - o Return shipping on non-defective items
  - o Products with tampered or missing barcode labels
  - o Products returned without a Return Merchandise Authorization (RMA) number
  - o Freight Damage
  - o The cost of shipping product to Kicker
  - o Service performed by anyone other than Kicker

**HOW LONG WILL IT TAKE?**

Kicker strives to maintain a goal of 24-hour service for all acoustics (subwoofers, midrange and coaxial drivers, tweeters, crossovers, etc) returns. Delays may be incurred if lack of replacement inventory or parts is encountered.

Failure to follow these steps may void your warranty. Any questions can be directed to the Kicker Customer Service Department at (405) 624-8510.

